



# CITY OF PULLMAN

## MAINTENANCE & OPERATIONS DEPARTMENT

April 28, 2004

To: Mark Workman

From: Art Garro

Re: **Water Conservation Efforts**

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Due to the declining water levels in the Grande Ronde aquifer and Washington State Department of Health Water Conservation requirements the City of Pullman has engaged in many water conservation efforts over the years to promote the efficient use of water. Below is a brief summary of the water conservations tasks the City has completed or is currently planning.

- The City replaced existing irrigated landscaping at Well 5 and Well 6, with plants that do not require irrigation.
- Each year the City contracts with a firm to locate leaks in about 20 miles (about 25%) of the water distribution system. Any leaks that are identified are promptly repaired.
- Each year the City contracts with a firm to test, repair, and calibrate all of the water meters two inches in size and greater.
- In the 1980's, the City eliminated the street cleaning program that called for the weekly flushing of the downtown streets and yearly flushing of the residential streets with water.
- In the 1980's, the City eliminated the hydrant-flushing program that consisted of flushing the water system at each hydrant location in the City on a yearly basis. Currently the hydrants are only flushed when a discolored water complaint is received and then only the hydrants in the area of the complaint are flushed.
- A Xeriscaped garden was constructed at Lawson Gardens that showcases draught resistant plants.
- The City's current water rate structure consists of a ready-to-serve charge and a volume charge. The ready to serve charge is used to cover many of the fixed costs associated with operating the water utility, including wages, insurance, and training costs. The ready to serve charge also includes the first 500 cubic feet of water used per month. The volume charge is a fixed rate per 100 cubic feet of water use. The City also has a seasonal surcharge of approximately 22 percent on the volume charge from June through September. This structure encourages water conservation by charging customers a fixed volume charge for increasing water use, especially during the summer. (Source: City of Pullman [Water System Plan Update, May 2001](#)).
- The City's water bills show a percentage increase or decrease in water use over the same period from the previous year to keep its customer base informed. In addition, most bills have a water saving tip printed on them.

- In the early 1990's the four Department of Health water conservation guidelines publications were delivered to all water consumers.
- In the early 1990's, approximately 200 water saving kits consisting of shower flow restrictors, toilet tank water displacement devices, leak detection dye tablets, and informational brochures were distributed to users with mixed installation results. The City plans to make these types of devices available to users again starting this summer.
- The City currently requires all new construction to comply with the water efficient plumbing fixtures identified in the Uniform Plumbing Code.
- The piping of many of the mechanical devices at the Wastewater Treatment Plant that require water to operate were updated so that they are now supplied from the plant's effluent waste stream rather than the City's domestic water source.
- The City has maintained an unaccounted for water loss rate of less than 10% for many years. This rate is considered exceptional by industry standards, which consider 15% to be acceptable, and losses of 20%-30% not uncommon.
- Currently all facilities and parks within the City are charged for the water they use, encouraging conservation within the City.
- The City recently hired a consultant to review and recommend future water rates based on the City's financial obligations. Based on this work City staff will be recommending implementation of tiered rates for water usage.
- The City's current design criteria for water lines requires looping of water lines to prevent water quality issues that require flushing of the system to correct.
- The City will be installing & upgrading irrigation systems in all the city parks.

In addition to the tasks above, the City also developed a water conservation plan to meet the water conservation planning requirements of the State of Washington. The requirements of this plan were outlined in the 1994 Department of Health publication *Conservation Planning Requirements: Guidelines and Requirements for Public Water Systems Regarding Water Use Reporting, Demand Forecast Methodology, and Conservation Plans*. The mandatory conservation plan elements include:

- Source Metering
- Additional service metering that may be required in order to collect the required data for the City's system.
- Evaluation of the costs and benefits of installing individual service meters.
- Data Collection
- Water demand forecasting.
- Evaluation of the costs and benefits of implementing conservation rate structures
- Evaluation of the costs and benefits of reclaiming or reusing water.
- Program Promotions.

The City of Pullman 2001 Water System Plan Update concluded that the City of Pullman was in compliance with the mandatory plan elements.

Recently the State of Washington passed House Bill 1338, Municipal Water Supply – Efficiency Requirements, which became effective on September 9, 2003. This new law will require the City to complete additional Water Conservation related tasks and planning in the future. These tasks and planning elements will be outlined in the new Water Uses Efficiency Rule that the Department of Health has been directed to adopt by the end of 2005.